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Total Number of Pages in This Submission

Application Number 10/733,451

Filing Date December 12, 2003

First Named Inventor HAYKIN, Simon

Art Unit 2643

Examiner Name N/A

Attorney Docket Number 3244-83

ENCLOSURES (check all that apply)

☐ Fee Transmittal Form

☐ Fee Attached

☐ Amendment / Reply

☐ After Final

☐ Affidavits/declaration(s)

☐ Extension of Time Request

☐ Express Abandonment Request

☒ Information Disclosure Statement

☐ Certified Copy of Priority Document(s)

☐ Reply to Missing Parts/
Incomplete Application

☐ Reply to Missing Parts
under 37 CFR 1.52 or 1.53

☐ Drawing(s)

☐ Licensing-related Papers

☐ Petition

☐ Petition to Convert to a
Provisional Application

☐ Power of Attorney, Revocation
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☐ Appeal Communication to Board
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☐ Proprietary Information

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SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

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Bereskin & Parr

Signature

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Tony R. Orsi

Date

February 21, 2005

Reg.
No.

55,831

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Bereskin & Parr

INTELLECTUAL PROPERTY LAW

February 21, 2005



Tony R. Orsi
B.A.Sc., M.A.Sc. (Elec. Eng.)
416 957 1603 torsi@bereskinparr.com

Your Reference: 10/733,451
Our Reference: 3244-83

INFORMATION DISCLOSURE STATEMENT

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA
22313-1450

Dear Sir:

**Re: Information Disclosure Statement
U.S. Patent Application No. 10/733,451
For: BINAURAL ADAPTIVE HEARING AID
Filed: December 12, 2003
Applicants: HAYKIN, Simon et al.**

In accordance with 37 C.F.R. 1.97 (b)(3), 1.97 (e)(1) and 1.98, and in recognition of the duty of disclosure set forth in 37 C.F.R. 1.56, the applicant hereby submits an Information Disclosure Statement including (1) a listing, on PTO Form SB/08A, of all patents and other publications of which the applicant is aware that may be considered material to the patentability of its claimed invention, and (2) a copy of each non patent literature document. All of the listed documents are in English.

The Examiner is advised, pursuant to provisions of 37 CFR 1.97(e)(1) that each item on page 1 (i.e. all U.S. patent documents and all foreign patent documents) of the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart for an application not more than three months prior to filing of this statement. In particular, the information was cited in the International Search Report of the corresponding PCT application which was received by the undersigned on February 10, 2005.

A copy of the search report is attached hereto. The undersigned's understanding of the relevance of each document on page 1 (i.e. all U.S. patent documents and all foreign patent documents) is based upon the search report.

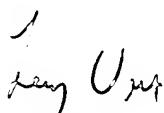
The filing of this statement shall not be construed as an admission that the information cited in the attached statement is, or is considered to be, material to patentability (37 CFR 1.97(h)), nor as an admission that it constitutes prior art.

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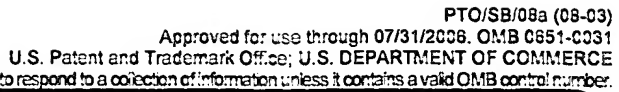
Please have these documents recorded against the above-mentioned application.

Respectfully submitted,

By: 

Tony R. Orsi
Registration No. 55,831

/cec
Encl.



Application Number	10/733,451
Filing Date	December 12, 2003
First Named Inventor	HAYKIN, Simon
Art Unit	2643
Examiner Name	N/A
Attorney Docket Number	3244-83

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Sheet 3 of 4

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Application Number	10/733,451
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First Named Inventor	HAYKIN, Simon
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NON PATENT LITERATURE DOCUMENTS

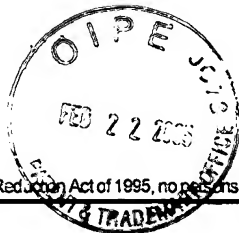
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	12	GREENBERG, J.E., "Improved design of microphone-array hearing-aids", Ph.D. Thesis, 1994, MIT, Cambridge, MA, pp. 34-75, 141-187	
	13	HAYKIN, S., "Kalman Filters", Chapter 10, Adaptive Filter Theory 4th Edition, Prentice Hall, 2002, pp. 466-495	
	14	HEINZ, M.G. et al., "Auditory nerve model for predicting performance limits of normal and impaired listeners", 2001, Acoustics Research Letters Online 2(3):91-96	
	15	HEINZ, M.G., et al., "Quantifying the implications of nonlinear cochlear tuning for auditory-filter estimates", 2002, J. Acoust. Soc. Am., 111, 996-1011	
	16	HOFFMAN, M.W., TRINE, T.D., BUCKLEY, K.M., VAN TASELL, D.J., "Robust adaptive microphone array processing for hearing aids: realistic speech enhancement", J Acoust Soc Am. 1994 Aug; 96 (2 Pt 1): 759-770	
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	19	MICHALEWICZ, Z., "Genetic Algorithms + Data Structures = Evolution Programs", Springer-Verlag, 1996, 3rd edition, pp. 57-79	
	20	NOBILI, R., & MAMMANO, F., "Biophysics of the cochlea II: Stationary nonlinear phenomenology", J. Acoust. Soc. Am., 1996, 99(4), Pt. 1, 2244-2255	
	21	PEAKE, W.T., ROSOWSKI, J.J., LYNCH III, T.J., "Middle-ear transmission: Acoustic versus ossicular coupling in cat and human", 1992, Hear. Res., 57, 245-268	
	22	PETERSON, P.M., "Adaptive array processing for multiple microphone hearings-aids", Ph.D. Thesis, 1989, MIT, Cambridge, MA, pp. 37-55, 99-108	

Examiner Signature	Date Considered
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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Sheet 2 of 4

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Filing Date	December 12, 2003
First Named Inventor	HAYKIN, Simon
Art Unit	2643
Examiner Name	N/A
Attorney Docket Number	3244-83

NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	1	BIA, A., "Alopex-B: A new, simpler but yet faster version of the Alopex training algorithm", International Journal of Neural Systems, Special Issue on Non-gradient optimisation methods, pp. 497-507, 2001	
	2	BOUDREAUX-BARTELS, G.F., Parks, T.W., "Time-Varying Filtering and Signal Estimation Using Wigner-Ville Distribution Synthesis Techniques", IEEE Trans. on Acoustic, Speech, and Signal-Processing, 34(3):442-451, June 1986	
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	7	DOUCET, DE FREITAS, GORDON (eds.), Sequential Monte Carlo methods in practice, Springer-Verlag, 2001, pp. 77-93	
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	10	FROST, O.L., "An algorithm for linearly constrained adaptive array processor" Proceedings of the IIE, vol. 60, Aug. 1972, 926-935	
	11	GRIFFITHS, L.J., Jim, C.W. "An alternative approach to linearly constrained adaptive beamforming", IEEE Transactions on Antennas and Propagation, AP-30, Jan. 1982, 27-34	

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	23	SACHS, M.B. et al., Biological basis of hearing-aid design, (Center for Hearing Sciences and Department of Biomedical Engineering, Johns Hopkins University, Baltimore, MD, 21205, U.S.A.) Ann Biomed Eng 30 2002 Feb pp. 157-68	
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	27	SUMNER, C.J. et al., "A revised model of the inner-hair cell and auditory nerve complex" J. Acoust. Soc. Am., 2002, 111 (5), Pt. 1. 2178-2188	
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	31	ZHANG, X.; HEINZ, M.G.; BRUCE, I.C.; CARNEY, L.H., "A Phenomenological Model for the Responses of Auditory-Nerve Fibers: I. Nonlinear Tuning with Compression and Suppression", JASA 109(2), February 2001, pp. 648-670	

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